

RECEIVED  
CENTRAL FAX CENTER

JUL 28 2010

In the Claims:

Claims 1 to 15 (Canceled).

1 16. (Previously presented) Method for the production of a  
2 semifinished product (10) of composite material, comprising  
3 a coating step in which high tensile strength fibers are  
4 coated with titanium or a titanium based alloy to form a  
5 coating on the fibers in a reactive atmosphere containing  
6 a reactive gas, and a consolidating step in which the  
7 coated fibers are then consolidated under pressure at high  
8 temperature to form the semifinished product (10),  
9 characterized in that during the coating step of coating  
10 the high tensile strength fibers (12) with the titanium or  
11 the titanium based alloy in the reactive atmosphere, atoms  
12 of the reactive gas are introduced into and react with the  
13 titanium or the titanium based alloy to form ceramic  
14 particles (13) embedded in the coating of the fibers, and  
15 then during the consolidating step the thusly coated fibers  
16 are arranged in a desired geometry and consolidated to form  
17 the semifinished product.

Claim 17 (Canceled).

1 18. (Currently amended) Method according to ~~claim 17~~, claim 16,  
2 characterized in that the reactive atmosphere is a nitrogen  
3 atmosphere, whereby nitrogen atoms react with titanium

4963/WFF:he

- 2 -

4 particles or particles of the titanium based alloy to form  
5 and deposit the ceramic particles (13) into the coating.

1 19. (Previously presented) Method according to claim 18,  
2 characterized in that the ceramic particles (13) comprise  
3 particles of titanium nitrides that are deposited into the  
4 coating.

1 20. (Previously presented) Method according to claim 16,  
2 characterized in that the coating step is carried out as  
3 PVD coating.

1 21. (Previously presented) Method according to claim 20,  
2 wherein the PVD coating comprises sputtering.

1 22. (Previously presented) A method of making a product of a  
2 composite material, comprising the steps:  
3 a) providing fibers;  
4 b) coating said fibers with a coat of a titanium-based  
5 matrix material containing titanium to produce coated  
6 fibers, by carrying out a matrix material deposition  
7 process in an atmosphere containing a reactive gas,  
8 such that first atoms of said reactive gas are  
9 introduced from said atmosphere into said coat of said  
10 titanium-based matrix material during said deposition  
11 process;

- 12 c) reacting said first atoms of said reactive gas in said  
13 coat with second atoms of said titanium-based matrix  
14 material in said coat to form ceramic particles  
15 comprising said first and second atoms embedded in  
16 said coat; and  
17 d) arranging and then consolidating said coated fibers in  
18 a specified geometry to form thereof said product of  
19 said composite material comprising said fibers and  
20 said ceramic particles in a matrix comprising said  
21 titanium-based matrix material.

1 23. (Previously presented) The method according to claim 22,  
2 wherein said fibers are high tensile strength fibers.

1 24. (Previously presented) The method according to claim 22,  
2 wherein said fibers are fibers containing a combination of  
3 elements selected from the group consisting of Si, B, Al,  
4 C, O, and N.

1 25. (Previously presented) The method according to claim 22,  
2 wherein said fibers are fibers of SiC.

1 26. (Previously presented) The method according to claim 22,  
2 wherein said titanium-based matrix material is titanium or  
3 a titanium-based alloy.

1 27. (Previously presented) The method according to claim 26,  
2 wherein said reactive gas is nitrogen gas, said first atoms  
3 are nitrogen atoms, said second atoms are titanium atoms,  
4 and said ceramic particles are titanium nitride ceramic  
5 particles.

1 28. (Previously presented) The method according to claim 22,  
2 wherein said reactive gas is nitrogen gas, said first atoms  
3 are nitrogen atoms, and said ceramic particles are  
4 nitride-based ceramic particles.

1 29. (Previously presented) The method according to claim 22,  
2 wherein said ceramic particles have a particle size in a  
3 size range from nanometers to microns.

1 30. (Previously presented) The method according to claim 29,  
2 wherein said size range is below 5  $\mu\text{m}$ .

1 31. (Previously presented) The method according to claim 29,  
2 further comprising cooling said coat during said step c),  
3 and adjusting said particle size by adjusting a cooling  
4 rate of said cooling during said step c).

1 32. (Previously presented) The method according to claim 22,  
2 wherein said matrix material deposition process comprises  
3 a physical vapor deposition process.

1 33. (Previously presented) The method according to claim 22,  
2 wherein said reacting of said step c) is carried out during  
3 said coating of said step b).

1 34. (Previously presented) The method according to claim 22,  
2 wherein said step c) further comprises performing a  
3 thermomechanical treatment of said coated fibers after said  
4 step b), and said reacting of said step c) is carried out  
5 during said thermomechanical treatment after said step b).

4963/WFF:he

- 6 -